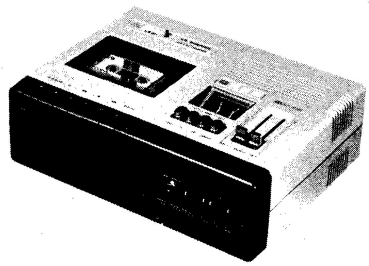
Teleton

SERVICE MANUAL

Stereo Cassette Deck

MODEL CD-200
CD-200B



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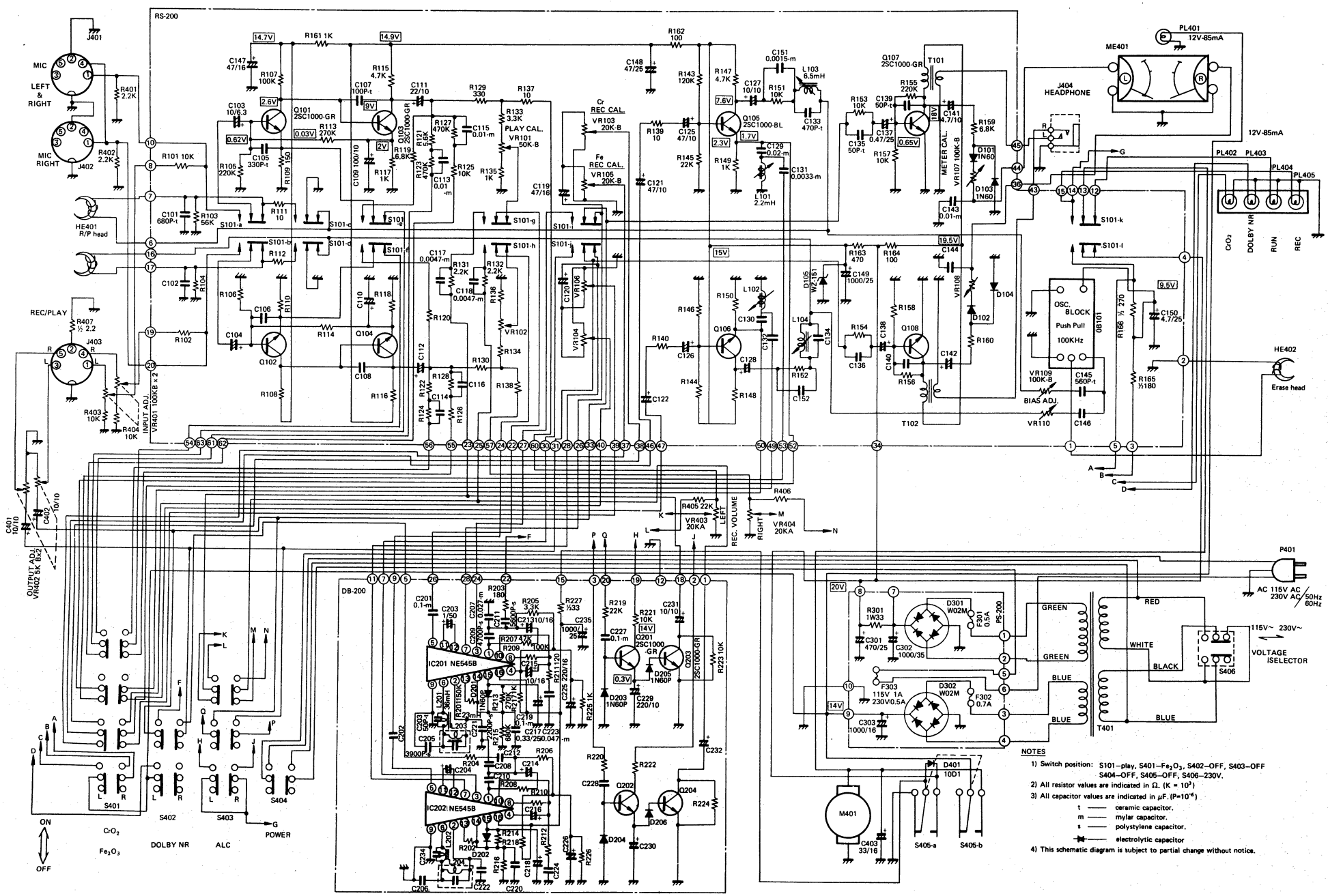
Specifications are subject to change without notice.

ALIGNMENT PROCEDURE

1. Tape Speed Adjustment
   Equipment Required:
   a) Standard alignment tape of 3 KHz
   b) Wow & Flutter Meter with Tape Speed Meter
   c) Amplifier
   Procedure:
   1) Connect the deck and speakers to the amplifier.
   2) Connect the Wow & Flutter Meter to one of the speakers and playback the standard test tape.
   3) Adjust* VR on the motor electronic governor circuit to indicate 3 KHz on the center frequency range of the meter.
      *This VR is installed inside the motor case.
      The VR is covered by a black rubber shroud, but there is a cross-shaped cut in the rubber to allow access to the VR.
2. Head Azimuth Alignment
   Equipment Required:
   a) Standard alignment tape of 10 KHz
   b) VTVM or Output Meter
   Procedure:
   1) Connect the VTVM or Output Meter to one of the speakers and playback the test tape.
   2) Adjust the azimuth alignment screw to obtain maximum output voltage on the VTVM or Output Meter.
3. Meter Sensitivity Adjustment
   Equipment Required:
   a) VTVM
   b) Signal Generator
   Procedure:
   1) Set the signal generator to 333 Hz · 0.4mV output, and connect to the Mic terminal (L+R).
   2) Set Selector Switch to Record Mode and Rec VRs to maximum position.
   3) Adjust VR107, 108 (100K ohm –B) to indicate OVU on the VU meters.
4. Input/Output VR Level Adjustment
   Equipment Required:
   a) VTVM
   b) Signal Generator
   Procedure:
   1) Set the Signal Generator to 333 Hz · 30mV output, and connect to the DIN (AUX) input terminal.
   2) Set Selector Switch to Record Mode and Rec VRs to maximum position.
   3) Adjust VR401 (100K ohm –B) to indicate OVU on the VU meters.
   4) And then adjust VR402 (5K ohm –B) to obtain output level 0.35V on the VTVM.
5. Record Bias Adjustment
   Equipment Required:
   a) VTVM
   Procedure:
   1) Connect the VTVM to both sides of R111 (10 ohm) on the printed circuit board for the left channel.
   2) Set Selector Switch to Record Mode.
   3) Adjust VR109 (100K ohm –B) to obtain 1.9 mV on the VTVM at tape selector chrome position.
   4) Confirm voltage value to obtain 1.4 mV at tape selector normal position.
   5) Change the connection to the right channel resistor R112 (10 ohm) and adjust VR110 to obtain 1.9 mV at tape selector chrome position.
   6) Confirm voltage value to obtain 1.4 mV at tape selector normal position.
6. Play · Record Caliblation
   Equipment Required:
   a) VTVM
   b) Signal Generator c) Dolby Level Tape
   Procedure:
   1) Play Dolby Level set tape.
   2) Adjust play cal. VR101, 102 (50K ohm –B) so that VU meters read +2VU.
      Remove Dolby Level set tape.
   3) Connect a source of 333 Hz signal to Mic input (L+R). With tape selector normal position, record on blank iron-based tape and adjust Record Level control so that meters read OVU.
   4) Without altering the Record Level control settings, adjust the Fe_2O_3 Rec. cal. VR105, 106 (20K ohm –B) as required and playing back the recorded tape, the meters read OVU.
   5) Repeat steps 3) and 4) with chrome-based tape (tape selector in the CrO_2 position) using the CrO_2 Rec. cal. VR103, 104 (20K ohm –B).

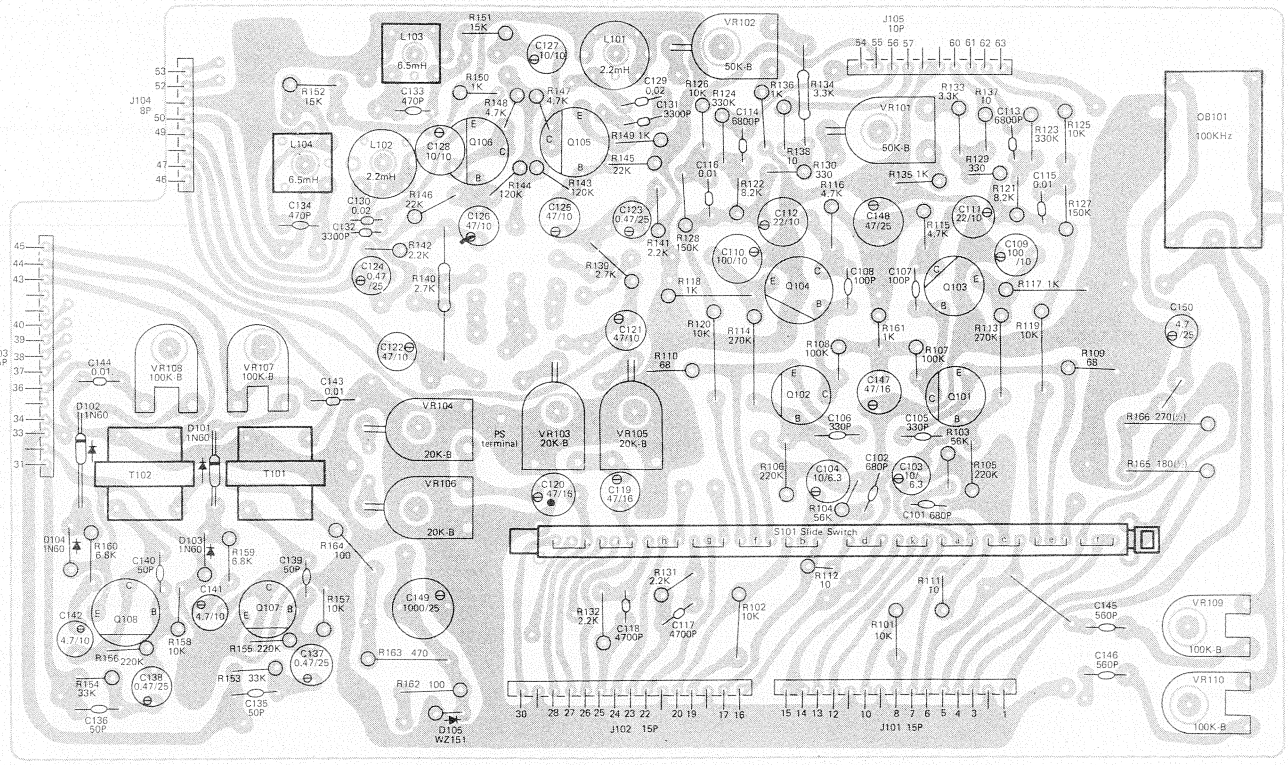
SCHEMATIC DIAGRAM



NOTES

1) Switch position: S101–play, S401–Fe_2O_3, S402–OFF, S403–OFF
S404–OFF, S405–OFF, S406–230V.
2) All resistor values are indicated in Ω. (K = 10^3)
3) All capacitor values are indicated in μF.(P=10^{-6})
t —— ceramic capacitor.
m —— mylar capacitor.
s —— polystylene capacitor.
—— electrolytic capacitor
4) This schematic diagram is subject to partial change without notice.

RS P.C. BOARD(RS-200)

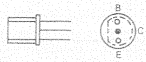


Transistor

Q101 Q102 Q103 2SC1000GR

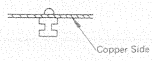
Q104 Q107 Q108 2SC1000GR

Q105 Q106 2SC1000GR



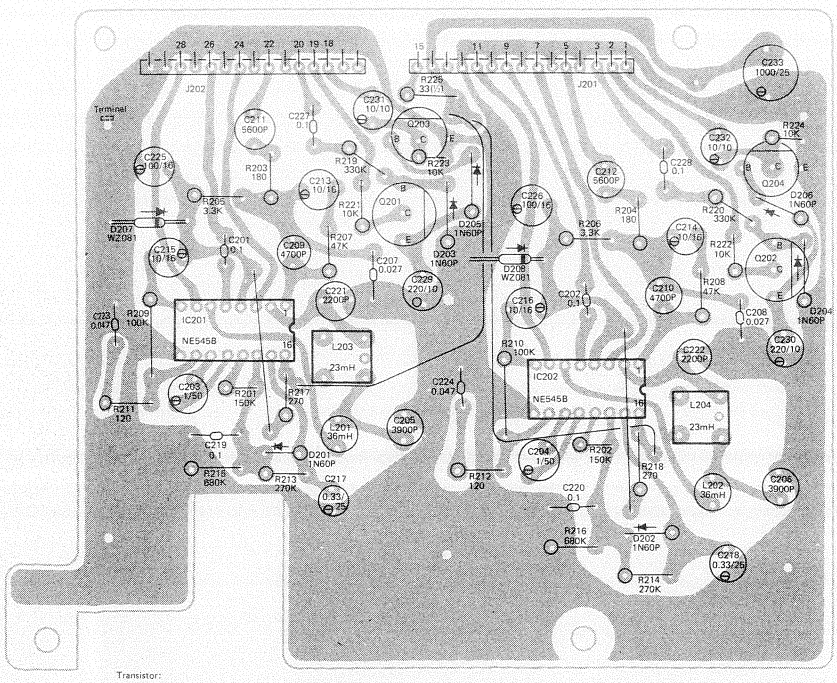
Bottom View

PS Terminal



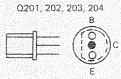
Copper Side

DB P.C. BOARD(DB-200)



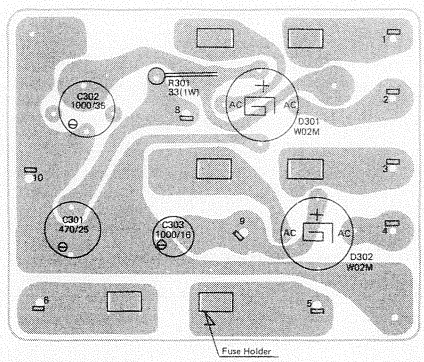
Transistor:
2SC1000GR

Q201, 202, 203, 204



Bottom View

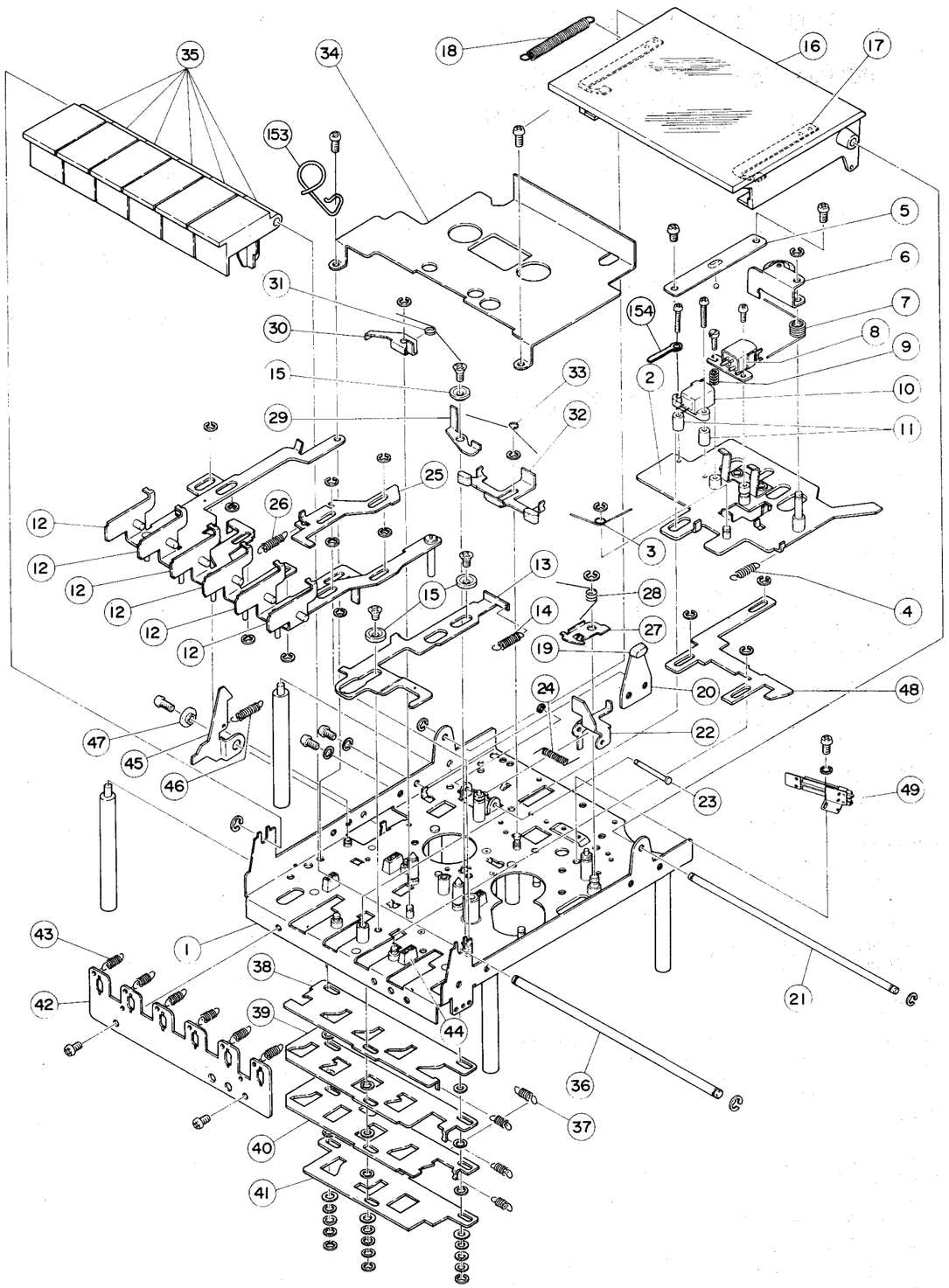
PS P.C. BOARD



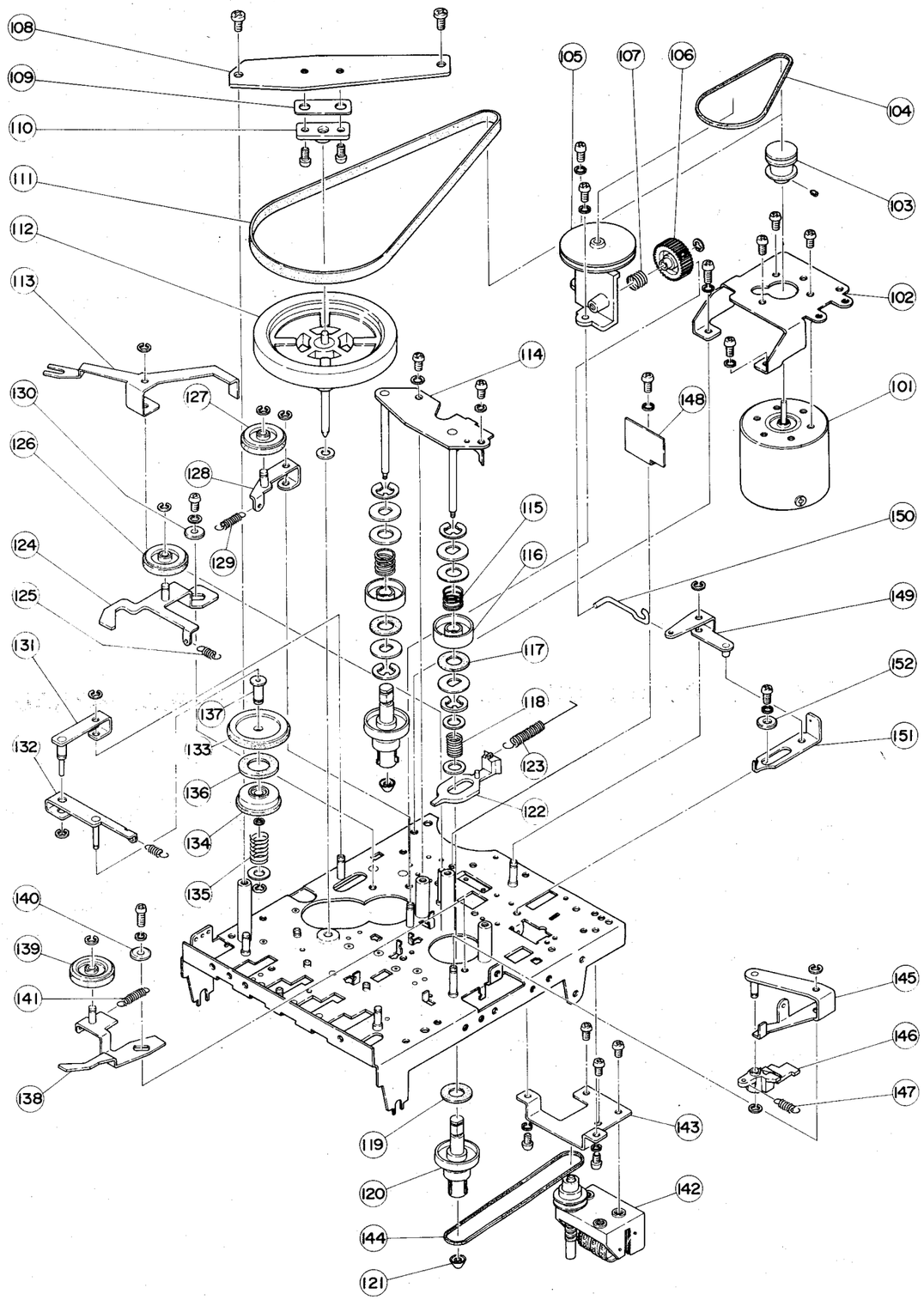
PS terminal 1~6, 8~10

CASSETTE MECHANISM

(TOP VIEW)



(BOTTOM VIEW)



PARTS LIST

(Standard Parts as Resistors, Capacitors etc., not listed here.)

REF. NO.	PART NO.	DESCRIPTION
Chassis		
	R610392A	Main Chassis
	R610393	Front Chassis
	R651880	Deck Mounting Metal
	R651899	Rail Metal Fittings
	R439011	5P DIN Jack
	R439035	Headphone Jack
	R851892	Rail Mask
	R651898	Door Metal Fittings
	R651995	Transformer Shield Case
	R110181	Power Transformer
	H425020	Slide Switch 2 circuit 2 pole 250V 1.5A
	R851469	Switch Mask B
	R361147	Slide Volume A 20K ohm
	R429091	Push Switch
	R851869	Shield Paper
	R680331	Shaft Screw A
	R680332	Shaft Screw B
	R440095	Power Supply Cord
	R811474	Cord Stopper
	R590085	Level Meter
	R830627	Meter Cushion
	R361183	2 Gang Rotary Volume 100K ohm—B
	R361184	2 Gang Rotary Volume 5K ohm—B
	R830584	Lamp Holder (for Meter indicate)
	R830589	Lamp Holder
	R411101	Pilot Lamp 14V 85mA (for Meter)
	R411102	Pilot Lamp 14V 85mA (for CrO_2)
	R411103	Pilot Lamp 14V 85mA (for Dolby)
	R411104	Pilot Lamp 14V 85mA (for Rec.)
	R411105	Pilot Lamp 14V 85mA (for Run)
Power Supply P.C. Board		
		Silicon Rectifier W-02M
		Fuse L = 20mm 0.5A 250V
		Fuse L = 20mm 0.7A 250V
	R434013	Fuse Holder
	R530481	PS P.C. Board
RS P.C. Board (RS-200)		
	R530479	RS P.C. Board
	R439042	Mini Connector Pin (15P)
	R439043	Mini Connector Pin (10P)
	R439044	Mini Connector Pin (8P)
	R421070	Slide Switch 12 circuit 2 pole
	R162015	OSC. Block
	R130018	Matching Transformer P:4K ohm, S:8 ohm
	R161008	Trap Coil (LF-008)
	R161007	EQ. Coil (LF-007)
	R382036	Semi-Fixed VR 20K ohm—B
	R382029	Semi-Fixed VR 50K ohm—B
	R382023	Semi-Fixed VR 100K ohm—B
DB P.C. Board (DB-200)		
	R530478	DB P.C. Board
	R154090	Filter Coil (MPX090)
	R154091	Filter Coil (MPX091)
Cabinet		
	R840737	Top Cabinet (Silver)
	R840762	Top Cabinet (Black)
	R851868	Cabinet Mask (60 x 45mm)
	R851491	Cabinet Mask (60 x 135mm)
	R840700	Bottom Cabinet (Silver)
	R840761	Bottom Cabinet (Black)
	R651994	Bottom Shield Plate
	R811210	Rubber Legs
	R840765	Front Cabinet
	R871369	Door
	R851493	Volume Mask
	R871399	Volume Knob
	R871405A	Select Knob
	R851534	Switch Cover
	R811436	Meter Cover
	R811551	Lens Cover (Silver)
	R811575	Lens Cover (Black)
	R871368	Lens (for Rec.)
	R871552	Lens (for CrO_2)
	R871553	Lens (for Dolby)
	R871554	Lens (for Run)
	R651883	Tape Reflector Paper
Cassette Deck Mechanism		
1	100530-0	Chassis Ass'y
	407124-0	Bearing
2	301160-8	Head Chassis Ass'y
3	404117-0	Rev. Cue Spring
4		Head Chassis Back Spring
5	401030-1	Plate Spring
6	401162-3	Pinch Roller Lever Ass'y
7	404114-2	Pinch Roller Spring
	404115-0	Rev. Cue Head Chassis Back Spring
	402063-0	Head Adjust Pin
8	R461040	R/P Head HN424861F
9	404111-0	Head Spring
10	R461041	Erase Head HF213850
11	402075-1	Erasing Head Support
12		Push Lever
13	401014-1	Brake Movement Plate

REF. NO.	PART NO.	DESCRIPTION
14	404320-0	Brake Movement Spring
15	402070-0	Guide
16	R811413	Cassette Case
17	R700343	Cassette Pressure Spring
18	R700342	Cassette Up Spring (Coil Spring)
19	405122-0	Rubber Ring
20	401046-0	Cassette Up Stopper
21		Cassette Case Shaft
22	401025-5	Rec. Safety Plate
23	402056-0	Rec. Safety Plate Shaft
24	404210-0	Rec. Safety Plate Spring
25	401026-1	Pause Lever
26	404109-0	Pause Arm Spring
27	401024-1	Pause Lock
28	404105-0	Pause Lock Spring
29		Pause Arm
30	401021-0	Rev. Cue Lever
31	404117-0	Rev. Cue Spring
32	401158-1	Brake Arm Ass'y
33	404116-1	Brake Spring
34	R561881	Mecha. Cover
35	R811407	Cassette Button
36	R680289	Shaft for Cassette Button
37		Lock Cam Spring
38	401010-2	Stop Cam
39	401008-0	P/R Cam
40	401009-4	FF. Rew. Cam
41	401011-0	Rev. Cue Cam
42	401013-0	Push Lever Guide
43	404107-0	Push Lever Spring
44	403099-0	Plastic Support
45	401022-1	Cassette Case Lock Lever
46		Cassette Case Lock Spring
47	402086-0	Play Lever Bush
48	401027	Rev. Move. Plate
49	R421069	Leaf Switch 1A 15V DC
	R700344	Rec. Switch Spring (Board Spring)
101	R480043	DC Motor MHI-5R2C
102	401032-1	Motor Bracket
103	402232-0	Motor Pulley
104	405212-0	Motor Belt
105	403092-1	Auto Stop Pulley
106	403091-1	Gear
107	404209-2	Gear Holder Spring
108	401031-0	Fly Wheel Retainer
	401181-0	Fly Wheel Ass'y
109	409130-0	Bearing Spacer
	407125-0	Bearing
110		Thrust Bearing
111	405118-2	Fly Wheel Belt
112	306123-4	Fly Wheel
113		Pause Stopper
114	301177-1	Reel Table Chassis Ass'y
115	404484-0	Reel Table Pressure Spring
116	403090-4	Wheel
117	408127-1	Clutch Felt
118	404103-4	Motion Pulley Spring
119	408127-1	Clutch Felt
120	30388-6	Reel Table
121	403098-1	Reel Cap
122	303095-4	Motion Pulley
123	404104-1	Slide Plate Spring
124	401166-1	FF. Idler Lever Ass'y
125		Lock Cam Spring
126	403097-0	FF Rew. Idler
127	403097-0	FF Rew. Idler
128	401168-1	Center Idler Lever Ass'y
129	404108-0	Center Idler Lever Spring
130	402086-0	Play Lever Bush
131	401164-0	Take Up Idler Arm (A) Ass'y
132	401165-2	Take Up Idler Arm (B) Ass'y
	301163-4	Take Up Idler Arm Ass'y
133	403096-0	Take Up Idler (L)
134	403093-1	Take Up Idler (S)
135	404112-3	Take Up Clutch Spring
136	409126-0	Take Up Clutch
137	402059-0	Take Up Idler Bush
138	401170-2	Rew. Idler Laver Ass'y
139	403097-1	FF. Rew. Idler
140	402086-0	Play Lever Bush
141	404382-0	Rew. Spring
142		Counter T3A-R-2-10ϕ-5L
143	401211-2	Counter Bracket (B)
144	405120-2	Counter Belt
145	401037-3	Shut off Arm
146	403101-7	Shut off Lever
147	404107-0	Push Lever Spring
148	401034-1	Lod Guide
149	401178-0	Movement Lever Ass'y
150	401035-3	Lod
151	401036-2	Slide Plate
152	402086-0	Play Lever Bush
153	R700382	Wire Clamper
154	R651595	Cord Clamper